

Appl. No. 10/807,099
Amdt. Dated, 22 June 2006
Reply to Office Action of 24 March 2006

Amendments to the Specification:

Please amend the specification as follows:

[0005] In [~~commonly assigned~~] U.S. Pat. No. 4,356,429, Tang further advanced the art of organic EL device by disclosing a bi-layer EL device configuration. The organic luminescent medium in this bi-layer configuration comprises of two extremely thin layers of organic film (<1.0 micrometer in combined thickness) sandwiched between the anode and cathode. The layer adjacent to the anode, termed the hole-transport layer, is specifically chosen to transport predominantly holes only in the EL device. Likewise, the layer adjacent to the cathode is specifically chosen to transport predominantly electrons only in the EL device. The interface or junction between the hole-transport layer and the electron-transport layer is referred to as the electron-hole recombination zone where the electron and hole recombine to produce electroluminescence with the least interference from the electrodes. This recombination zone can be extended beyond the interface region to include portions of the hole-transport layer or the electron-transport layer or both. The extremely thin organic luminescent medium offers reduced electrical resistance, permitting higher current densities for a given voltage applied on the EL device. Since the EL intensity is directly proportional to the current density through the EL device, this thin bi-layer construction of the organic luminescent medium allows the EL device to be operated with a voltage as low as a few volts, in contrast to the earlier EL devices. Thus, the bi-layer organic EL device has achieved a high luminous efficiency in terms of EL output per electrical power input and is therefore useful for applications such as flat-panel displays and lighting.